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The surprisingly weak evidence base for supervision: findings from a systematic review of research in child welfare practice (2000-2012)

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Highlights

- This systematic review found no high quality evidence for outcomes of supervision.
- Study designs are weak and samples limited; supervision is rarely defined.
- Supervision is associated with worker satisfaction, self-efficacy and lower stress.
- Outcomes for organisations may include workload management and retention.
- No studies have investigated outcomes for consumers or the costs of supervision.

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Abstract

Objective: The objective of this study is to ascertain what is known about the effectiveness and cost-effectiveness of supervision in child welfare in relation to outcomes for consumers/service users, staff and organizations.

Method: This is a systematic review of the English language literature (2000-2012). Scoping study followed by database searches of indexes and abstracts including Campbell Collaboration, CINAHL, the Cochrane Library, Medline, PsycInfo and Social Work Abstracts, journal hosts (EBSCO and IngentaConnect) plus specialist journals. Inclusion criteria: studies that reported on the associations between the provision of supervision and outcomes for service users/consumers, workers and organisations as well as intervention studies. Potentially relevant studies were independently screened by two reviewers (Stage 1) and if meeting the eligibility criteria proceed to full text review and data extraction (Stage 2). Studies were subject to critical appraisal using the Weight of Evidence approach (Stage 3). An analysis of included study characteristics is followed by a narrative synthesis of findings structured to answer the research objective.

Results: 690 unique studies were identified at Stage 1, 35 proceeded to Stage 2 and, following quality appraisal, 21 were included in the review. Almost all the studies were cross-sectional, providing evidence of associations between the provision of supervision and a variety of outcomes for workers, including job satisfaction, self-efficacy and stress and for organisations, including workload management, case analysis and retention. There was only one, poorly reported, intervention study and no studies of outcomes for consumers. No economic evaluations were found.

Conclusions: The evidence base for the effectiveness of supervision in child welfare is surprisingly weak. An agenda for research based on a framework for the development and evaluation of complex interventions is proposed.

Key words: systematic review, supervision, social work, child welfare, child and family social work

1. Introduction and objectives

The value and importance of supervision are taken for granted in child welfare and social work in the US, Canada, UK and other developed countries (e.g. Frey et al., 2012, Hair, 2012, Manthorpe et al., 2013). In major reports on child protection and child welfare services on both sides of the Atlantic, supervision has variously been described as the 'cornerstone' (Laming, 2009) and as the 'safety net' (Social Work Policy Institute, 2011) of good practice.

Nevertheless, the practice of supervision has been subject to significant criticism. For example, Noble and Irwin (2009) contended that in response to a restrictive fiscal environment, a managerialist approach to supervision has emerged which is preoccupied with efficiency, accountability and worker performance. Gibbs (2001) discussing her findings from a small qualitative study of child protection workers in rural Australia, argued that supervision must refocus on the emotional impact of the work and use a reflective learning model to foster professional development. A related concern, expressed by Davys and Beddoe (2010), is that rather than benefiting staff and ultimately consumers (service users/clients), supervision as it is currently practiced increasingly becomes "...part of a system of surveillance of vulnerable and dangerous populations" (p.222). These concerns are especially pertinent to child welfare and child protection services in the public sector and are shared in all countries, although service systems and the qualifications and professions of staff vary (Gilbert et. al., 2011).

Needless to say, supporters and critics of supervision all argue for the revitalization of supervision. But, is the faith in supervision justified? What are the outcomes it can be expected to achieve? This review presents a critical appraisal of the evidence base for supervision, based on a systematic review of the research literature specifically in relation to child welfare services.

2. Definitions and theoretical perspectives

The primary functions of supervision are: administrative case management; education, through reflecting on and learning from practice; personal and emotional support; mediation, in which the supervisor acts as a bridge between the individual staff member and the organization; and professional development. Although terminology differs, these functions have consistently been identified in the practice literature (e.g. Davys and Beddoe, 2010; Payne 1996). Authors often seek to highlight particular functions – for example, referring to ‘case management supervision’ and ‘reflective supervision’ (Kadushin and Harkness, 2002). Writers with a behavioral/mental health background (e.g. Spence et al., 2001, Milne, 2010) and social workers in North America who provide clinical social work (i.e. with an emphasis on counseling and psychotherapy) often refer to ‘clinical supervision’ (Bogo and McKnight, 2006; Renner et al. 2009). In practice, definitions of reflective and clinical supervision are very close, essentially emphasizing learning from case work with a view to professional development. It should also be noted that these functions are variously described in relation to social workers in general, ‘child welfare workers’ in the United States (the majority of whom have degrees in psychology and family counseling rather than social work) and to ‘child protection workers’ in Australia, are not necessarily qualified social workers.

The ultimate goal of professional supervision should be to provide the best possible support to consumers in accordance with the organization’s responsibilities and accountable professional standards. Organizations are likely to achieve this aim through workers who are skillful, knowledgeable, clear about their roles and assisted in their practice by sound advice from a supervisor with whom they have a good professional relationship. From the organization’s perspective, a worker’s job performance is the primary outcome. In child welfare, this may be seen in relation to professional tasks including assessment, care planning and review, as well as effective workload management. A second aim should be to ensure the wellbeing and job satisfaction of workers, not simply because satisfied workers may be more likely to remain in their jobs, but because the employer’s duty of care for staff working in difficult and challenging roles is important in its own right.

A number of theoretical perspectives have been applied to understanding the contribution of supervision to the relationships between the worker, supervisor and the organization which have informed research. For example, Eisenberger et al (1986) stated that an employee’s appraisal of the quality of organizational support is the basis for ‘social exchange’; a positive evaluation can potentially improve their attitude towards work resulting in more positive emotional associations with the organization. Consistent with this theory, researchers (e.g. Maertz et al., 2007; Landsman, 2008) have investigated the relationship between perceptions of supervision and organizational support. Similarly, social capital theory has been applied to organizations (e.g. Nahapiet and Ghoshal, 1998). This considers the importance of a person’s social networks and examines the nature, structure, and resources embedded in these networks. Thus, Boyas and Wind, (2010) have examined the significance of co-worker support and supervisor support in social relations in child welfare organizations. Kadushin and Harkness (2002) considered that it is the quality of the supervisory relationship which tempers the effectiveness of supervision. Mena and Bailey (2007) drew on Bordin’s (1979) conceptualization of the ‘working alliance’ as comprising a combination of goals, tasks and bonds to assess the effects of the ‘supervisory working alliance’.

Considering the task dimension, supervision provides workers with an opportunity for learning new skills. Tannenbaum (1997) suggested that the learning process is optimized when learners link together their previous learning episodes, and supervision can support this process. The ‘novice to expert’ model of skill acquisition (Dreyfuss and Dreyfuss, 1988) may also be helpful to supervisors by offering a structure for development tailored to an individual’s needs.

The method employed in supervision is most commonly a one-to-one meeting with a supervisor, usually the worker’s line manager. But this is not inevitably so: reflective and professional development supervision may be given by a senior practitioner or external

consultant, as is the expectation in Sweden for example (Bradley and Höjer, 2009); and group supervision may also be used (Lietz 2008). Some models used in development and training projects are fairly well described; examples are the Integrative Supervision Model (Smith et al. 2007) which comprises four stages focusing on case management, educational/professional development, clinical skills/reflective problem-solving and emotional support, and a model of clinical supervision in child welfare presented by Collins-Camargo and Millar (2010).

We need to understand which methods are most effective. Despite the many of models of supervision described in the literature, few, if any, are based on empirical research. This is ironic since many supervisors actively seek to promote evidence-based practice.

2.1 Previous Reviews

Although the focus of the current review is on supervision in child welfare, there are three previous reviews of the literature concerning the outcomes of supervision for social workers and equivalent professionals which should be mentioned. A narrative review by Spence et al. (2001) examined research on clinical psychology, occupational therapy and speech pathology as well as social work. They concluded that it was not clear whether supervision had any effect on workers' practice, or whether it led to improved outcomes for consumers. There was some evidence to suggest that directive, as opposed to unstructured, approaches were preferred by less experienced practitioners and also by the more experienced when faced with new challenges. All supervisees preferred a supportive style of supervision. The authors also observed that supervisors reported little or no training in how to supervise. Nevertheless, those from the different professional disciplines engaged in very similar supervision practices. Although supervisors claimed to adapt their supervision styles to the needs of individual supervisees, the majority did not appear to do so.

Second, Bogo and McKnight (2006) reviewed 13 articles, all from the US, based on 11 separate studies; three of these were in child welfare, all published before 2000. Like Spence et al., (2001) they found little evidence concerning the outcomes of supervision, but concluded that there was emerging evidence about the aspects of supervision valued by supervisees – specifically availability, positive relationships, mutual communication, support and delegating responsibility. Skillful supervisors with expertise who were able to provide practical support were particularly appreciated.

Most recently, Mor Barak et al. (2009) conducted a meta-analysis of data from 27 studies, all from the US. Study samples were described in terms of profession rather than field of practice: seven studies concerned child welfare workers and 13 concerned social workers, some of whom may have worked in child welfare services. These studies provided information about the relationships between three dimensions of supervision and various outcomes for social workers, child welfare and mental health workers. The dimensions of supervision were task assistance, defined as the supervisor's ability to provide tangible, work-related guidance; social and emotional support in responding to emotional needs, including stress; and interpersonal interaction, which reflects the supervisee's perceptions of the quality of the relationship and the extent to which this has helped them be more effective in their work. Mor Barak and colleagues concluded that these three dimensions of supervision were all positively and significantly associated with beneficial outcomes for workers, including job satisfaction, workers' commitment to the organization, wellbeing and perceived effectiveness. Conversely, they were negatively associated statistically with detrimental outcomes for workers such as stress, burnout and intention to leave.

However, the evidence for Mor Barak et al.'s (2009) meta-analysis was drawn from correlational and cross-sectional studies. In these studies a large number of variables is investigated for their statistical associations with outcomes for workers. This evidence is not causal: it does not prove that the observed effects at the time the data were collected are attributable to the provision of supervision. A strength of this meta-analysis was the effort made to define and code the dimensions of supervision with reference to the measures used (where available); however the models and focus of supervision used were not recorded. Although it only covers outcomes for workers, Mor Barak and colleagues' framework for

analyzing outcomes is very useful and it has informed the approach taken in the current review.

The current systematic review updates the evidence base to March 2012. It extends previous reviews by focusing on outcomes for organizations and consumers in addition to workers, and searches for evidence of cost-effectiveness. It extracts information about the nature and focus of the supervision as described in the studies.

3. Methods

The methods used to identify and organize material were developed by the Social Care Institute for Excellence (SCIE) in the UK (Rutter et al., 2010). These involved identifying a clear research question, undertaking systematic and reproducible searches of the research literature, identifying relevant studies and assessing their quality.

3.1 Research question

What is known about the effectiveness and cost-effectiveness of supervision in child welfare in relation to outcomes for consumers, staff and organizations?

3.2 Review Strategy – initial scoping

The review began with an initial scoping exercise designed to map the field and to inform the development of a review protocol, including relevant search terms. This exercise, which was based on a search of titles and abstracts in major databases, identified the nature of the research evidence, including previous reviews, and the availability of sources. For example, it indicated that there were likely to be few, if any, true studies of effectiveness in the form of controlled or comparative research designs and that while there was a substantial theoretical and practice literature describing models of supervision, empirical studies rarely made reference to these models.

3.3. Search

The following bibliographic databases were searched: ASSIA, British Education Index, Campbell Collaboration, CINAHL, the Cochrane Library, Medline, PsycInfo, Social Care Online, Social Services Abstracts and Social Work Abstracts. Two journal hosts, EBSCO Host EJS and IngentaConnect were searched together with the following specialist journals: *Children and Youth Services Review*, up to 2012 Vol 34 (1); *The Clinical Supervisor* up to 2011 Vol 30 (2); and *Research on Social Work Practice* up to 2012, Vol 22 (1).

Keywords for supervision – supervis*, supervision, staff supervision, professional supervision, clinical supervision, managerial supervision, reflective supervision, staff mentoring.

Keywords for possible outcomes - retention, stress, morale, job satisfaction, job performance, competence, self-efficacy, professional competence, planning, case management, empowerment, empathy, staff development, organizational commitment, role clarity, depression, burnout, turnover, role conflict, supervisor employee interaction (thesaurus term), organizational development, staff resignation, recruitment, motivation, attitudes, wellbeing or well-being, cost effectiveness, costs, expenditure, service users, consumers, staff-user relationship, user participation, user views.

Key words for workforce/service concept – child welfare workers, child protection workers, social workers, youth workers, residential social workers, educational social workers, newly qualified social workers, school social workers, caseworkers. Social services, child welfare, welfare services, social work, child protection, children's services.

3.4 Eligibility Criteria

Studies that reported on the associations between the provision of supervision and outcomes for service users/consumers, workers and organizations as well as intervention studies were sought. Only recent papers (dated after 2000), published in peer review journals and reporting on a country operating a developed service infrastructure were

considered. Studies could report qualitative or quantitative data provided that they included social work and other practitioners in child welfare services. All experimental and quasi-experimental studies were included, but reviews, those that only presented models of supervision or where the outcome was focused solely on the relationship between supervisor and supervisee were excluded. This review was restricted to English language studies.

3.5 Data management

All references identified from the searches (including additional searching) were stored on EndnoteTM Bibliographic software. Of the total 1590 references, 690 were unique after duplicates had been removed (Fig. 1).

3.6 Screening

All potentially relevant studies were independently screened against the selection criteria by two reviewers using the information provided by the electronic databases, typically, the study title and the abstract. Studies that appeared to meet the criteria proceeded to the next stage in which full texts were obtained and assessed against the eligibility criteria by two reviewers. Differences in opinion were resolved by discussion, or referred to the senior author.

3.7 Data extraction

A proforma was developed for data extraction (obtainable from the corresponding author). This covered information about study participants, the research design and methods of data analysis, a description of the supervision provided, supervisees' satisfaction with supervision, outcomes for workers, organizations and consumers, and costs.

3.8 Critical appraisal

All included studies were independently critically appraised by two reviewers using the Weight of Evidence approach developed at the EPPI Centre, Institute of Education, University of London (Gough, 2007). These appraisals were reviewed by the lead author and a consensus reached. Studies were weighted "low", "medium" or "high" in relation to the following criteria:

- *Trustworthiness*. This is based on a generic assessment of methodological quality using standard social science research criteria; it is not specific to the review topic. The context, sampling, research methods, data analysis and presentation of results were assessed for their clarity, accuracy and transparency, along with the overall validity, reliability and generalizability of the research.
- *Appropriateness* of the study design. This review-specific appraisal identified the extent to which an appropriate research design was employed to address the research question; experimental and quasi-experimental studies were considered the most appropriate, but cross-sectional, correlational studies were also considered where supervision was examined as a key variable. High quality qualitative studies which examined outcomes were also considered appropriate.
- *Topic Relevance* to the review question. This assessed the extent to which the study provided information about the model of supervision and the specific outcomes for staff, organizations and users of services.

Any studies which were rated as 'low' for trustworthiness were excluded at this stage on the grounds that no matter how relevant the topic and appropriate the design, any evidence produced would be unreliable and potentially misleading.

An overall assessment was then made concerning the strength of the evidence provided by each study for answering the research question. This judgment was reached by calculating an average of the three assessment dimensions above. Where a study did not get all the same grades, the average is indicated by the use of a hyphen (e.g. Medium-High). The first

grade indicates the overall average, with the second grade indicating a qualifying weighting that is higher or lower. Only those studies that were rated as at least Medium-Low quality (overall average) proceeded to data synthesis.

3.9 Data synthesis

The potential for quantitative data synthesis was considered but, because of the range of outcomes and outcome measures and the poor quality of reporting of many studies, this proved impossible. Consequently, this review categorized the findings into outcomes for workers, organizations and consumers.

4. Findings

The number of records at each stage of the review is shown in a PRISMA flow diagram (Fig. 1.) Once abstracts had been read 631 studies were excluded as irrelevant and a further 25 excluded after the full texts had been obtained and reviewed. Of these, 14 were excluded because they concerned services for adults rather than children or mixed groups of staff where subgroups could not be identified. (Authors were contacted for clarification.) Nine studies were excluded because they contained insufficient empirical data and two were not relevant to supervision.

Three studies were excluded after data extraction because of obvious poor quality data and/or analysis, and a further nine after full quality appraisal: five because they were rated 'low' on trustworthiness and four rated 'low' overall. These are shown in Table 1 together with the full results of the quality appraisal. Consequently 22 studies were included in the final review.

FIGURE 1 ABOUT HERE

TABLE 1 ABOUT HERE

TABLE 2 ABOUT HERE

4.1 Characteristics of included studies

All the included studies derived from the US. They are summarized in Table 2. Sixteen (studies 1-12, 14, 15, 19-22) were straightforward cross-sectional surveys. These reported correlational evidence in which supervision figured as one factor among a number that were associated with outcomes such as practitioners' job satisfaction, stress and intention to leave.

Just three studies attempted to explore longitudinal outcomes. Studies 17 and 18 collected cross-sectional baseline data and subsequently examined actual retention rates, although only study 18 employed inferential statistics. Study 12 attempted to examine the outcomes of an intervention using a before and after design but failed to match respondents at the two time points.

Only one qualitative study was judged adequate for inclusion based on rigor of analysis, sample size and focus; this was a large cross-sectional interview survey (15).

None of the included papers reported on associations between the process of supervision and outcomes for consumers. There were no studies comparing the outcomes or cost-effectiveness of different models of supervision.

The sophistication of the data analysis varied considerably, from statistical modeling using substantial samples (5,14,19,21) to descriptive statistics alone (16).

4.2 Models of supervision and measures

Only one study (13) gave any information about the model or type of supervision provided. In general, it appeared that the majority of studies concerned one-to-one supervision; although it was not clear whether this was provided by the worker's line manager or another person, the assumption seems to be that it was the former. The lack of specificity about models was noticeable in the majority of studies that investigated the statistical associations between supervision and outcomes for workers; unfortunately this limits their usefulness.

Some studies (e.g. 2, 6, 7, 10, 12, 22) used measures which attempted to identify the effects of different dimensions of supervision; others (1, 11, 14) used minimal measures of 'supervisor support'. There were no widely accepted measures of supervision: some were subscales of existing measures (e.g. 2, 6, 12, 19, 22) and others were adaptations (3, 10, 14); psychometric assessment of the use of these instruments for the studies were generally unreported. Other researchers had employed *ad hoc* measures constructed (but not validated) specifically for the studies (1, 4, 7-9, 13, 14, 18); only study 18 had analyzed the responses to determine a factor structure for the measure.

Study 12 described the model in some detail (see sec 4.4.3). This study evaluated an intervention to implement a group-based approach to supervision designed to promote critical thinking (reflective supervision).

4.3 Outcomes for workers

4.3.1. Job satisfaction

The quality of supervision was consistently associated with positive worker outcomes, with a significant number of papers addressing the impact of supervision on job satisfaction (Renner et al. 2009; Lee et al. 2011; Barth et al., 2008; Landsman 2008; Mena and Bailey 2008). Job satisfaction coheres around the following three themes: structure, focus and frequency of supervision; task assistance (supervisor's tangible, work-related advice and instruction to a supervisee); and support to access resources for consumers.

Where reported, greater frequency of supervision was associated with higher levels of satisfaction, with one study reporting a minimum of two hours per week as a prerequisite to job satisfaction and retention for urban child welfare workers (Barth et al., 2008).

4.3.2. Self-efficacy and empowerment

Where supervisors are socially and emotionally supportive to supervisees, workers' self-efficacy is related to intention to stay (Lee et al., 2011). In Cearley's (2004) study, supervisors' empowering behaviours significantly affected workers' feelings of empowerment, specifically increasing their ability to make decisions.

4.3.3 Organizational commitment and intention to stay

Organizational commitment to the development of supervisory practice (Renner et al. 2009), the willingness of supervisors to help employees carry out their jobs effectively and provide aid in stressful situations, (Strand and Dore 2009) and whether supervisees feel emotionally supported by supervisors (Landsman 2008; Chenot et al. 2009; Smith 2005) were all associated with workers' decisions to stay with the organization.

The degree to which employees felt supported by their supervisor affected their emotional satisfaction with the job, and contributed to their appraisal of how the organization valued them. Landsman's (2008) study of organizational commitment found that supportive supervision was associated with both job satisfaction and perceived organizational support. Chen & Scannapicio's (2010) analysis showed that a worker's self-efficacy was a key interacting variable: supervisor support was associated with intention to stay for workers with low self-efficacy; for those with high self-efficacy, job satisfaction was the significant factor.

4.3.4 Stress, burnout and role conflict

Burnout is associated with a worker's perception of their relationship with the supervisor, not just whether they received help or support (Mena and Bailey 2007). In this study, workers' sense of rapport within the supervisory relationship was related to job satisfaction. Conversely, where workers reported feeling negative about rapport, this was associated with both emotional exhaustion and depersonalization, whereby workers felt detached, no longer saw themselves as valuable and lost track of their personal needs.

Boyas and Wind (2010) found that emotional exhaustion was significantly higher for workers receiving increased supervisory support. This counterintuitive finding highlights the difficulty of drawing conclusions from correlational evidence. Having controlled for key individual characteristics, such as age, tenure and job title, Boyas and Wind speculated that emotional exhaustion was higher among experienced workers who have greater involvement in difficult decision-making processes and handle the more complex child protection cases.

4.3.5. Intention to leave

Three studies looked at the association between supervision and intention to leave. (Note that actual turnover is considered in Sec. 4.4.4 as an outcome for the organization.) Findings are contradictory. Papers by Strolin-Goltzman (2008) and with her colleagues (2007) reported that supervisory support did not predict intention to leave. In contrast, Jaquet et al, (2008) concluded that supervision plays an important role in determining whether or not social workers considered leaving their jobs.

4.4. Outcomes for organizations

4.4.1 Job performance

As noted in Sec 1, some authors considered that supervision has become increasingly focused on performance management, ensuring that organizational procedures have been followed and that workers are practicing within agency expectations. While the evidence suggests an association between supervision and perceptions of job performance in general, this review found no studies evaluating the impact of supervision on specific aspects of job performance. Further, there was insufficient detail on the supervision processes to draw any conclusions about how supervision positively affects job performance. It may be that the task assistance function of supervisors has a direct impact, but equally, increased worker perception of their job performance may be an indirect effect of increased self-efficacy as a result of supervision. Once again, this is a limitation of correlational evidence.

4.4.2 Workload management

Just one study considered the potential impact of supervision on workload management, although this is not addressed in any detail and the study did not provide detailed descriptions of caseloads. Juby and Scannapieco (2007) found that staff who received more support from their supervisors saw their work as more manageable. They suggested that this may reflect the task assistance function of supervision as it increases workers' skills and knowledge by providing education and training.

4.4.3 Case analysis and planning

One study considered the impact of supervision on case analysis and planning. Leitz (2008) evaluated a group supervision project designed to develop critical thinking skills (termed a 'supervision circle'). This one-year project began with five training sessions for supervisors who then provided group sessions for five to seven workers on a fortnightly or monthly basis. The focus was on peer case review and other critical thinking exercises. The authors reported a statistically significant increase in perceived levels of critical thinking among the participants (although samples were not matched, so this result should be treated cautiously). The quality of the relationship between participants and lead supervisor, along with the extent of participation in group supervision, predicted the level of critical thinking at the conclusion of the project. The number of hours spent in supervision did not significantly

predict perceived levels of critical thinking, which suggests that it may be quality of supervision rather than quantity which is important.

4.4.4 Actual turnover and retention

In this review, workers' intention to leave is considered as an outcome for the individual worker and was therefore discussed in Section 4.3.5. Actual turnover – and its converse, retention – are considered here as (detrimental) outcomes to organizations.

Nine studies examined correlations between supervisory support and actual turnover and retention rates. Jacquet et al. (2008) showed that perceived support from supervisors rather than workload (caseload size) predicted retention. The general consensus is that good supervision can help workers to stay in their jobs, while leavers often cite poor supervision as a reason for having left. Dickinson and Perry (2002) reported differences between 'stayers' and 'leavers' in the quality of supervision. Those workers remaining in public child welfare rated their supervisors at a significantly higher level in terms of willingness to listen to work-related problems, the extent to which they could be relied upon 'when things get tough at work', and helping workers get their job done. Statistically significant differences were also observed in terms of stayers' views on the skills and characteristics of their supervisors. Compared to leavers, stayers rated their supervisors as more competent, more concerned with staff welfare, more likely to show approval of a good job done, more likely to help in completing difficult tasks and more likely to be 'warm and friendly' when workers experienced 'problems'. Similarly, Maertz et al. (2007) reported that stayers gave higher ratings than leavers on how their supervisor facilitated their learning and enthusiasm for the job, as well as significant differences in the average number of hours spent with their supervisor each month. Morazes et al.'s (2012) qualitative study found that nearly a quarter of leavers said that lack of support and respect from their supervisor was a factor in their leaving.

A notable aspect of supervision associated with turnover and retention rates concerns the supervisory relationship. Yankeelov et al. (2009) reported that those workers who stayed were more attached to their supervisors than those who had left; some staff were able vividly to describe the experience of being supervised by one particular person, even if this was some years previously. This suggested that stayers feel a sense of security in their relationships with their supervisors and that this relationship is highly significant to them. Other studies reported mixed findings regarding the link between supervision and retention (as do the studies reporting workers' intention to leave). Faller et al. (2010) found that workers who indicated that their supervisor made life difficult were significantly more likely to have left their job.

Not all aspects of supervisor support influence staff retention. The supervisory roles of providing useful information when needed, or helping with new or unfamiliar tasks, were not significantly associated with retention. Strolin-Goltzman et al. (2007) concluded that there were no significant differences in supervisory factors between organizations classed as having high versus low turnover rates. The association between supervision and retention is likely to depend on both the type of supervision provided, and whether it is provided in the context of a supportive relationship.

There are also questions regarding the long-term impact of supervision on staff retention rates. Renner et al. (2009) found that at one-year follow-up after implementing a state-wide supervision plan, retention rates improved, although only a little (from 75 to 78 per cent), but by two years these had fallen back to 74 per cent. (These differences were not tested but are unlikely to be statistically significant.) It should also be remembered that high turnover among supervisors could leave frontline staff quite vulnerable if the job commitment of staff is tied closely to perceptions of supervisor support (Smith, 2005).

4.4.5 Perceived organizational support

Five studies considered the relationship between supervision and perceived organizational support (POS), the idea that employees form a global belief concerning the extent to which the organization values their contributions and cares about their wellbeing.

Landsman (2008) found that supervisory support significantly affected ratings of POS; she concluded that the degree to which employees feel supported by their direct supervisor affects their emotional satisfaction with the job, and contributes to their appraisal of how the organization values them and cares about them. Maertz et al. (2007) suggested that POS may remain fairly stable over time, and may be less salient to employees than supervisory support because supervisors have more regular contact with workers. However, for employees who are not receiving effective supervisory support, POS becomes more important as they turn to the organization instead. This study concluded that employees require a certain level of support and this may be supplied by the supervisor, the organization itself or a combination of both.

Collins-Camargo and Royse (2010) found that effective supervision was correlated with staff perceptions of an organizational culture that promoted evidence-based practice. Chenot et al. (2009) suggested that organizational culture only impacts on workers in the early phase of their career, after which staff become accustomed to agency norms, which could be detrimental in a negative organizational culture. Maertz et al. (2007) cautioned that distinctive attachments to supervisors may even increase voluntary turnover when a loyalty-inspiring supervisor leaves.

4.4.6 Outcomes for consumers

As noted above, there was no evidence of outcomes for consumers which passed the critical appraisal.

5. Discussion and conclusions

5.1 The limitations of the evidence

If this systematic review has been conducted according to the standards of the Cochrane Library (Cochrane EPOC, n.d.) or the Campbell Collaboration (2004), we would have to conclude that there was no evidence to support supervision as an intervention in child welfare because the review found no randomized trials or quasi-experimental studies. The only three studies with a longitudinal perspective would not pass muster in most reviews because of their design and methodological limitations; they, and a number of other studies, are included here through a somewhat generous interpretation of the Weight of Evidence quality appraisal criteria which values relevance of topic and appropriateness of research design as well as 'trustworthiness' (Gough, 2007).

The limitations of the included studies are outlined in Sec.4.1. The form of supervision provided is rarely defined, true outcomes in the sense of differences over time were only measured (inadequately) in one study; the evidence is almost entirely correlational. As the more sophisticated studies acknowledged, correlation should not be confused with causality. Further, even those studies with samples large enough for robust statistical analysis drew samples from one US state, limiting their generalizability nationally as well as internationally.

Consequently, at the conclusion of the analysis stage of this systemic review, the authors contemplated invoking the parable of the emperor's new clothes within the title of this paper. However, the clothes in question are far from new – supervision has been part of social work since the introduction of schools of social work in the early part of the twentieth century, and with the establishment of the Council on Social Work Education in the 1950s was extended to fieldwork practice (Bogo, and McKnight 2006). In this context, some might argue that the profession has shown astonishing complacency: there is no shortage in the professional literature of claims about the supposed effectiveness of supervision, but one has to wonder whether the authors of textbooks and policy reviews have actually read the research they have cited, or read it critically. Some of the citations in the literature noted in the course of this study are obviously irrelevant: one example is a two person case study of the effectiveness of supervision in psychoanalysis.

This review is not intended as a criticism of fellow researchers. We know that research in the field is challenging and deficiencies in research design and sampling are often outside the researchers' control. We recognized that most of the studies in this review were not designed to evaluate supervision (Sec. 4.1) and accept that in these cases supervision was but one variable hypothesized to affect outcomes for workers in these studies. At the risk of laboring a point, we are critical of the way in which research has been used. It is very important to stress the absence of evidence of effectiveness does not mean that an intervention is actually ineffective. There is evidence from large scale surveys in Canada (Hair, 2012) and England (BASW, 2011; Manthorpe et al. 2013) that workers want supervision. The overwhelming majority of Hair's 636 respondents (48 per cent in child and family services) endorsed statements about their need for supervision to support knowledge and skill development and to provide emotional support; eight in ten agreed that a task focus was also required to ensure accountability to consumers and the organization. Within the field of child protection there is also the belief that the absence of supervision, particularly supervision which gives staff the opportunity to reflect on their practice, is detrimental and potentially dangerous (Munro, 2011).

Beliefs like these are based on sources of knowledge for policy and practice which have been distinguished from research by Pawson et al. (2003). According to these authors, there are five sources of knowledge: organizational, practitioner, policy community and user (consumer) knowledge, in addition to research. Thus, surveys of social workers' opinions of the value of supervision would be classified as 'practitioner knowledge'. Munro's position may be considered a distillation of 'organizational' knowledge because it is based largely on the analysis of serious case reviews, on expert opinion presented to her committee and on her assessment of examples of 'good practice'. Our view is that these other sources of knowledge are important and potentially valuable. We also agree with Long et al. (2006) that their quality should be critically assessed, preferably using a structured approach, as these authors demonstrate.

To be clear, we are not taking the position that organizations should abandon supervision in child welfare practice. Rather, if we are serious about evidence-based practice, we should recognize the absence of high quality evidence about its effectiveness and address the deficit through a programme of research. We consider that possibility later, but first we present what some suggestive conclusions about the effectiveness of supervision based on the studies in this review.

5.2 What can we say about supervision?

Reflecting on the evidence from correlational studies, we suggest that there is some support for the following: supervision works best when it pays attention to task assistance, social and emotional support and a positive interpersonal relationship between supervisors and supervisees. In particular, task assistance and the importance of supervision in the acquisition of new skills and problem-solving are valued by workers. This is true for both relatively experienced and inexperienced practitioners. Given the evidence that supervision is associated with job satisfaction and protects against stress, practitioners should insist that good supervision be provided by their employers. The emotionally charged nature of the work places particular kinds of demands on people working in the child welfare field which need to be contained by the organization. This means moving beyond a focus on task and prescription, and providing opportunities for reflective supervision, as Gibbs (2001) and Munro (2011) among others have argued.

Effective supervision is an important element of an organization's duty of care to its employees, and to the consumers it serves. Supervisors occupy an important role whereby they communicate the organization's duties and priorities to the worker, and also feedback workers' concerns and opinions to the wider organization (Morrison, 2005). There is some evidence that effective supervision is associated with more positive perceptions of job performance and a greater ability to manage workloads, while employees' case analysis and planning skills are honed.

Supervision may be associated with reducing staff turnover in child welfare; a systematic review of interventions to promote retention (Webb and Carpenter, 2012) identified studies in nursing and teaching which reported positive outcomes. But other factors may be more important, such as employees' perceptions of the support they receive from the organization.

This review has identified evidence that the provision of supervision is associated with positive outcomes for workers (e.g. job satisfaction) and organizations (e.g. job retention). However, there is as yet very little evidence that the implementation of structured supervision can improve these outcomes, and the evidence for its effects on workers' practice is weak. The impact of supervision on outcomes for consumers has not been properly investigated and no trustworthy evidence was found. In part, this may reflect the difficulties of unraveling the distinct impact of supervision on consumer outcomes, but may also reflect a preoccupation with outcomes for workers and organizations. Further, if outcomes for consumers are defined by researchers, it is not possible to assess the impact of supervision on outcomes that matter to service users themselves, which may differ from policy and practice imperatives. This means that any changes to the supervisory process are not informed by the perspectives of consumers and miss a crucial aspect of understanding how supervision affects practice.

5.3 Limitations

The review limitations include sole reliance on English language studies, a restricted time frame and no attempt to assess (non) publication bias. Reviewers abiding by Cochrane (EPOC) standards might reasonably argue that the inclusion criteria were too broad and admitted weak research designs, and that we employed an overgenerous approach to quality assurance. Further, there is a serious danger of generalization internationally from these studies, all of which were carried out in one country, almost always in one state. Samples in included studies were often non-random, small and probably lacked adequate statistical power to detect effects.

5.4 Implications

Researchers are often chided by practitioners, policy makers and research funders for ending a research paper with a statement that 'more research is needed'. Nevertheless, that conclusion is entirely justified in the case of research on supervision in child welfare. Given the insubstantial theoretical foundations, the lack of clearly defined models and the paucity of good evidence, 'supervision' has a long way to go to prove itself as an evidence-based practice. An incremental approach to evidence building may be the best way forward.

Considered as an 'intervention', supervision has a number of desirable (and undesirable) outcomes for a number of participants (practitioners, supervisors, organizations and, not least, consumers). The [UK] Medical Research Council guidance on developing and evaluating complex interventions (MRC, 2008) offers a possible template. This step-wise approach advises initial agreement on outcomes and how these might, in theory, be achieved (i.e. a 'theory of change'). Models of intervention should be identified and clearly described so that they can be implemented by others and monitored for 'fidelity'.

This review, building on the work of Mor Barak et al. (2009), has identified a series of outcomes for organizations as well as workers. Additional work needs to be done to identify outcomes for supervisors and, particularly, consumers. We appreciate that consumer outcomes of supervision may seem a remote. However, in an excluded study, Collins-Camargo and Miller (2010) reported supervisors' opinions of benefits for consumers of a clinical supervision development project, these included: active participation in services, increased engagement in case planning, families demonstrating 'positive empowerment', fewer complaints and more positive feedback. These data were anecdotal, but indicate possible outcomes for attention.

There are examples in the training evaluation literature of projects which have worked with consumers to define service outcomes. For example, Barnes et al. (2006) employed a quasi-experimental design in which consumers used a consumer-defined measure to rate the effectiveness of their workers, with and without training. A similar approach could be

possible in the evaluation of a supervision programme. This would require the testing of logic models based on theoretical development which link organisational context and the provision of a clearly defined model of supervision to direct practice and consumer outcomes.

Milne et al. (2008) present one approach to understanding how supervision 'works' based on a review of evidence mainly from residential services for people with intellectual disability. The review is very useful in identifying contextual and process variables leading to outcomes for practitioners, however, their model stops short of outcomes for consumers. Contextual factors would surely be very relevant in assessing Davys and Beddoe's (2010) claim that supervision is "...part of a system of surveillance of vulnerable and dangerous populations".

The present review has identified potentially useful theories and some research studies that have utilized these already (Sec 2). It is plausible to suggest that different theories and hence models of supervision, may be more effective in producing certain outcomes than others (e.g. empowerment vs. performance management). There would certainly be a case for comparing the outcomes of supervision provided by a line manager with supervision from an external consultant (Bradley & Höjer, 2009). Similarly, the outcomes of group supervision as described by Leitz (2008) could profitably be compared to those for individual supervision. Note here that a number of outcomes might be measured: for example, group supervision might be more effective in promoting critical analysis but less effective in achieving good workload management.

The MRC (2008) advocates the choice and/or development of robust outcome measures with piloting and feasibility studies to assess reliability, variability and acceptability of measures and research methods to potential research participants. International collaboration could be valuable here. Experimental research designs are the MRC's methodology of choice, but the first step might be longitudinal, quasi-experimental designs. However, if a model of supervision were to be introduced to a large multi-center organization, a staggered implementation across centers might allow the setting up of a cluster randomized trial with some centers acting as a waiting-list control. Given the current concern for efficient use of public funds, effectiveness studies should include economic evaluation, or at least estimation of the costs of providing the supervision.

Finally, although this review has focused on outcomes, attention to process is also an essential requirement: we need to understand the mechanisms which might lead to the outcomes – the ingredients of effective supervision as experienced by the participants. This would require a mixed methods approach incorporating qualitative methods such as observation and conversation analysis as well as focus groups and the semi-structured interviews employed by Morazes et al. (2010).

5.5 Conclusion

There is a strong commitment in policy and practice within the USA and other developed countries to the use of supervision. Nevertheless, the evidence base is surprisingly limited, almost all of it being correlational. The most obvious gap is in good evidence that the implementation of clearly defined models of supervision in an organization leads to improved outcomes for workers, and better services for users and carers. There is no shortage of models of supervision, and so their costs and effectiveness should be tested and compared. There is clearly room for improvement in measuring the dimensions of supervision and in collecting data on its quantity as well as perceived quality. Research on the outcomes for staff of the effectiveness of training supervisors should also be developed.

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Figure 1. PRISMA flow diagram illustrating flow of studies through the systematic review

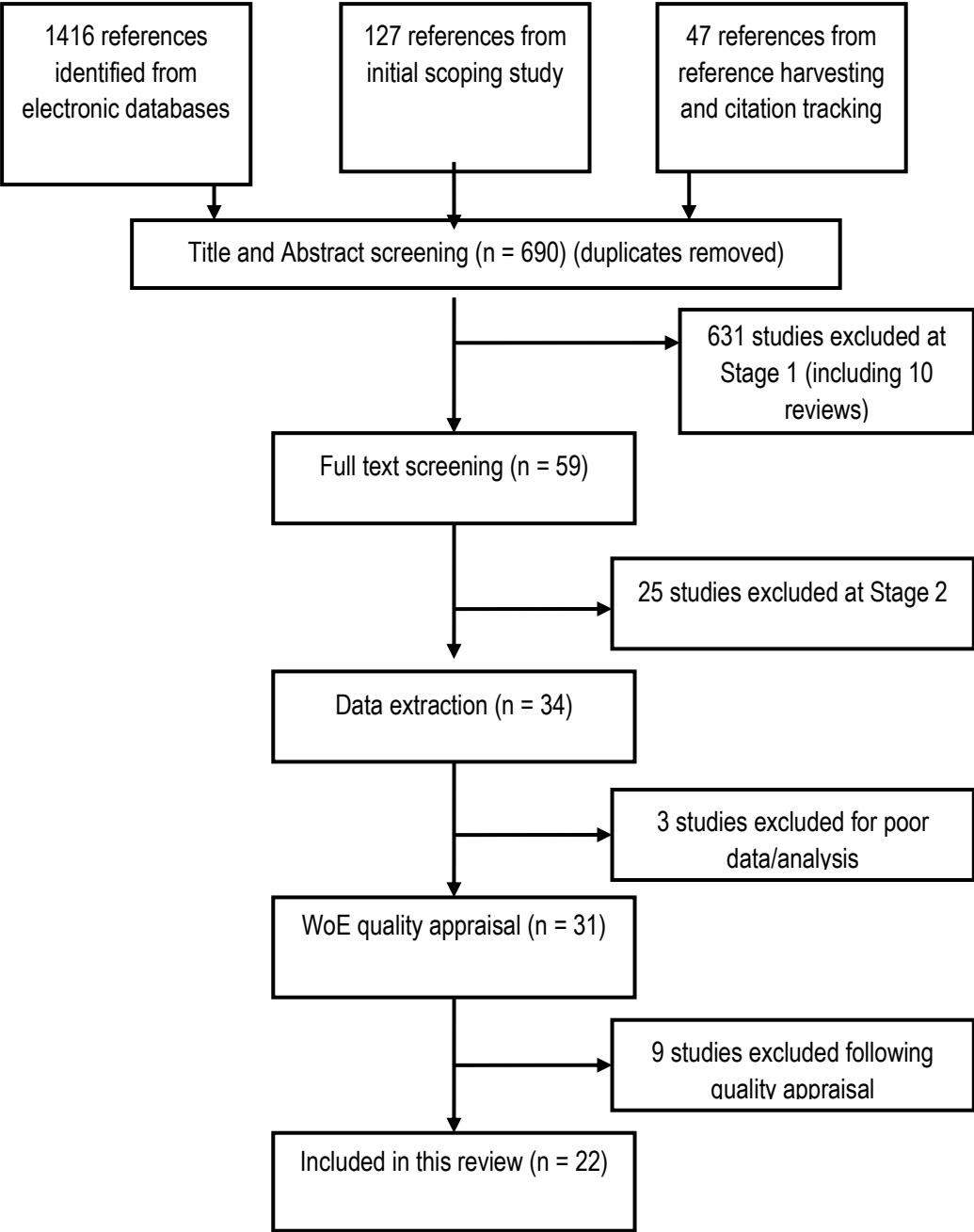


Table 1: Weight of Evidence Summary

	Author(s)	Trustworthy	Appropriate	Relevant	Overall
1	Barth et al. (2008)	Medium	High	Medium	Medium- High
2	Boyas & Wind (2010)	Medium	Medium	Medium	Medium
3	Cearley (2004)	Medium	Medium	Medium	Medium
4	Chen & Scannapieco (2010)	Medium	Medium	Medium	Medium
5	Chenot, D. et al. (2009)	High	Medium	Medium	Medium-High
6	Collins-Camargo & Millar (2010)	Low	High	High	Low
7	Collins-Camargo & Royse (2010)	High	Medium	Medium	Medium-High
8	Dickinson & Perry (2002)	Medium	Medium	Medium	Medium
9	Faller et al. (2010)	Medium	Medium	Low	Medium-Low
10	Gibbs (2001)	Medium	Low	Low	Low
11	Gonzalez et al. (2009)	Low	Low	High	Low
12	Jacquet et al. (2008)	Medium	Medium	Low	Medium-Low
13	Juby, & Scannapieco (2007).	Medium	Medium	Medium	Medium
14	Landsman (2008)	Medium	Medium	Medium	Medium
15	Lee et al. (2011)	Medium	Medium	Medium	Medium
16	Lietz (2008)	Medium	Medium	High	Medium-High
17	Maertz et al. (2007)	High	Medium	Medium	Medium-High
18	McGowan et al. (2009)	Medium	Low	Low	Low
19	Mena & Bailey (2007)	Medium	Medium	Medium	Medium
20	Morazes et al.(2010)	Medium	Low	Medium	Medium-Low
21	Nissly, et al. (2005)	Medium	Low	Low	Low
22	Renner et al. (2009)	Medium	Medium	High	Medium- High
23	Scannapieco & Connell-Carrick, (2007)	Low	Medium	Low	Low
24	Schudrich et al. (2012)	Medium	Low	Low	Low
25	Smith (2005)	High	Medium	Medium	Medium-High
26	Smith et al, (2007)	Low	High	High	Low
27	Strand & Dore (2009)	High	Low	Medium	Medium
28	Strolin-Goltzman (2008)	Medium	Low	Medium	Medium – Low
29	Strolin-Goltzman et al. (2007)	High	Low	Medium	Medium
30	Yankeelov et al. (2009)	Medium	Medium	Low	Medium-Low
31	Yoo (2002)	Low	Medium	Medium	Low

Table 2: Data extraction from included studies¹

	Authors	Design & analysis	Participants (N)	Description of supervision	Key reported outcomes for supervision	
				Type described or measured. Quantity (if reported)	Worker	Organisation
1	Barth, et al. (2008)	Cross-sectional survey (CSS) Regression analysis (RA)	N = 1729 Child welfare workers (CWWs) (USA national survey)	<i>Ad hoc</i> 'Quality of Supervision' (3 items) and 'emotional support received during supervision. Amount of supervision (hrs/week).	High job satisfaction associated with > 2 hrs. sup/week and perceived quality of supervision ($p < .001$) Amount of supervision (ns)	X
2	Boyas & Wind, (2010)	CSS Structural Equation Modelling (SEM)	N = 209 CWWs: caseworkers (63%), supervisors (21%); others (16%) One state.	Social relationships scale (Caplan et al. 1975) 11 items measuring accessibility and supportiveness between the respondent and the supervisor.	Implication that increased emotional exhaustion is experienced by workers that receive more supervisory support (possibly because they are dealing with more complex cases).	X
3	Cearley et al.	CSS RA, SEM	N = 91 CWWs (caseworkers) One state.	Supervisor Help-giving Scale (modified from Dunst et al, 1996): asks CWWs to rate aspects of supervisor support. Qualitative (free text) comments on helpfulness.	CWW 'empowerment' was predicted only by their perceptions of supervisor help-giving behaviour; perceived organisational support.	X
4	Chen & Scannapicio (2010)	CSS ANOVA	N = 455 CWWs (child protection) One state.	<i>Ad hoc</i> 6-item supervisor support (availability, resource, help with manage workload, problem-solving, casework and emotional support.)	Supervisor support was associated with 'desire to stay' for workers with low self-efficacy.	X
5	Chenot et al. (2009)	CSS Hierarchical linear modeling	CWWs (stage of career) 261 <3 years (early) 323 (4-10 yrs); 181 (>11 years) 76% social workers & care managers; 17% supervisors. One state.	"Supervisor support": "instrumental" and "emotional".	Supervisor support significantly predicted "Intention to stay" in the CW agency and the field, regardless of length of time in the field.	X
6	Collins-Camargo, & Royse (2010)	CSS (secondary analysis) Analysis of co-variance	752 CWWs 124 supervisors One state.	Measure of 'effective supervision' constructed from two dimensions from a 'Survey of Organisational Excellence' supervisor effectiveness' and 'team	Perceived effective supervision associated with self-efficacy for less experienced staff (<2 years).	Perceived effective supervision significantly associated with evidence-based

¹ Abbreviations: (CSS = cross-sectional survey; CWW = child welfare worker; MSW = Master of Social Work graduate; RA = regression analysis; SEM = structural equation modelling; (M)ANOVA = (multi-variate) analysis of variance.)

7	Dickinson & Perry (2002)	CS follow-up survey. Bi-variate group comparisons	235 Title IV MSWs: 92 that had left or planned to leave public child welfare vs. 143 'stayers'. One state.	effectiveness' <i>Ah hoc</i> measure of perceived supervisory & social support. Competent; concerned with supervisees' welfare; show approval; help with difficult tasks; "warm and friendly" when supervisee having problems.	X	organisational culture. 'Stayers' rated their supervisors higher than 'leavers' for listening and support in getting their job done (p < .001)
8	Faller et al. (2010)	CSS RA	454 CWWs One state.	<i>Ad hoc</i> measure: supervisor gives useful Information; helps with a new task; makes your life difficult.	X	Workers who indicated their supervisor made life difficult were significantly more likely to have left the job (p=.009)
9	Jacquet et al. (2008)	CSS RA	633 Title IV-E MSWs	Not defined. <i>Ad hoc</i> 6-item supportive supervision questionnaire: competence; concern for welfare; helpful; gives approval; friendly.	Perceived support from supervisors not caseload size predicted intention to leave.	Perceived support from supervisors not caseload size predicted actual retention
10	Juby & Scannapieco, (2007)	CSS SEM	350 Child protective service employees – one year into post. One state.	Supervisor support reported re: casework guidance; emotional support; availability; and problem solving	Supervisor support associated with having a manageable workload, availability of resources and self-rated worker ability.	X
11	Landsman (2008)	CSS SEM	497 CWWs. One state.	'Supervisor support' not defined. 'Human Relations Supervisor Support Scale' adapted from Caplan et al., 1975.	X	Perceived support from supervisors enhanced employees' organisational commitment
12	Lee et al. (2011)	CSS Path analysis	234 public child welfare front-line workers in one state	Quality of Supervision/ Leadership (10 item subscale derived from Professional Organizational Culture measure (Ellett, 2003). Includes availability, support and case management advice.	Quality of supervision and "psychological empowerment" directly related to workers' intentions to stay in child welfare. indirectly related to emotional exhaustion mediated by psychological empowerment.	X
13	Lietz (2008)	Before-after study Bivariate analysis and RA	n= 348 pre- and 268 post-test. CWW (60%); Supervisors/managers (25%). One state.	Group problem solving/reflection. Bi-weekly 90 mins or monthly 2-4 hours. Quality of supervision ad hoc measure (7 items): respect, 'availability', 'learning'	Increase in perceived levels of critical thinking skills (all staff). Supervisor availability (p<.001), quality of supervisory relationship (p<.001) and participation in group supervision (p<.003) predicted critical thinking (70% of variance).	X
14	Maertz et al.	CSS	315 CW social workers	'Perceived supervisor support'. 3 items:	Perceived supervisor support directly	Perceived supervisor

	(2007)	SEM Logistic RA	One state.	supervisor cares and listens.	influenced intention to stay (not mediated by perceived organizational support, as in some other studies).	support not correlated with actual turnover (but n was small)
15	Mena & Bailey, (2007)	CSS Hierarchical linear model analyses	80 Family Support Workers 51 Supervisors. One state.	Individual. ('rapport' and 'client focus') assessed using Supervisory Working Alliance Inventory	Workers' sense of rapport within the supervisory relationship was related to dimensions of job satisfaction but not related to 'burnout'.	X
16	Morazes et al. (2010)	Cross-sectional semi-structured qualitative interviews, comparing 'stayers' vs. 'leavers'. Thematic content analysis.	386 CWWs (Title IV-E MSW graduates) One state.	Not defined.	'Stayers' reported that 'supportive supervisors' buffered job pressures. 31% 'leavers' identified a lack of support and respect from supervisors; 22% indicated their supervisor was a factor in them leaving.	X
17	Renner et al. (2009)	L: follow-up of supervision implementation. Cohort study Retention rates calculated. Descriptive analysis (no inferential statistics.)	6 cohorts, average 868 CWWs and 153 supervisors each year. One state.	"Enhanced basic supervisor and clinical supervision training", "supervisory case review tool" Measure of 'effective supervision' constructed from two dimensions in 'Survey of Organisational Excellence' (Lauderdale, 2001) supervisor effectiveness' and 'team effectiveness'	X	Retention post-intervention at one year follow up: 78% vs. 75% (NS). Workers' rating of supervisor effectiveness improved.
18	Smith (2005)	CSS followed by analysis of staff retention data after 15-17 months. RA	296 CWWs and supervisors (not differentiated). One state.	<i>Ad hoc</i> "perceived supervisor support" measure. Factor analysis suggested two dimensions (psychometrics not reported): "supportiveness" and "competency".	X	Perceived supervisor support predicted retention (along with work-life balance).
19	Strand & Dore, (2009)	CSS RA	927 CWWs 45 managers 151 supervisors 545 line staff 148 others. One state.	Supervision sub-scale of Job Satisfaction Survey (Spector, 1985) Dissatisfaction with supervision variable created for RA comprising: "Insufficient help with difficult cases"; lack of support; irregular meetings.	Satisfaction with supervision strong predictor of job satisfaction, alongside working conditions and availability resources	X
20	Strolin-Goltzman (2008)	CSS Comparison between high and low turnover systems (HTS, LTS). Independent t-tests and logistic regression	650 CWWs and supervisors (not differentiated).	'Supportive supervision' = perceived emotional support & encouragement; 'competent' = knowledgeable advice on case management.	X	No differences on 'intention to leave' associated with 'supportive supervision' or 'competent' supervision

21	Strolin-Goltzman et al.(2007)	CSS Logistic RA	820 CWWs (workers and supervisors)	'Supervisor support' 13-item subscale in 'Workforce Retention Survey': e.g. "shows approval" 'helps me prevent burnout."	Supervisor support did not predict intention to leave.	
22	Yankeelov et al. (2009)	CSS baseline measures taken and matched to subsequent data on actual turnover. Comparison of 'leavers' vs, 'stayers' MANOVA	CSWs 448 stayers 275 leavers One state.	Social Provisions Scale (Cutrona & Russell, 1987) to assess relationship with supervisor supplying guidance, tangible support and recognition of one's expertise and skill. Ad hoc measures of 'quality of help' received from supervisor with case management, policies and procedures and 'attitudes to training'	Compared to 'leavers', 'stayers' reported being more attached to their supervisors and receiving more guidance. Supervisor competence, attitude to training (ns)	X